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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,006	05/09/2002	Jan Hall	21547/0283	9722
7590	04/10/2006		EXAMINER	
Burton A Amernick Connolly Bove Lodge & Hutz PO Box 19088 Washington, DC 20036-0088			KIM, JOHN	
			ART UNIT	PAPER NUMBER
			3733	

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/980,006	HALL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John Kim	3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 10 February 2006.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-15 and 19-21 is/are pending in the application.  
 4a) Of the above claim(s) 4, 8 and 20 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-3, 5-7, 9-15, 19 and 21 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION**

***Examiner's note***

It is noted in the amendment received 2/10/06, applicant cancels claims 4, 8, and 20. The pending claims are 1-3, 5-7, 9-15, 19, and 21.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-7, 12-15, 19, 21 rejected under 35 U.S.C. 102(b) as being anticipated by Hahn (US Pat 3605123).

In regards to claims 1, 6, 12-14 and 15, Hahn discloses and implant a layer (13) that constitutes as a barrier with a substantial thickness. The layer has a channel network with porosity (figure 1-4, col 2:43-45) and mouths which are adapted to face a bone structure (see figure 2 and 3) and as disclosed, the mouth cross section diameter are less than the respective extents of the channel. Hahn discloses that the layer can be established on undulating or uneven surfaces (for example the threads of a screw (col 1:32-37)). The screw could be used for dental applications (col 5:46-50). In regards to claims 2-3, and 19, Hahn discloses the layer with channel network having channel branches through the layer extending in all directions. In regards to claim 5, 7 and 21, Hahn discloses the layer has a thickness up to 0.1 inch (col 3:49-50), which is in the range of 0.5-20 micrometer.

With regard the statement of intended use and other functional statements, they do not impose any structural limitations on the claims distinguishable over Hahn which is capable of being used as claimed if one so desires to do so. *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Furthermore, the law of anticipation does not require that the reference "teach" what the subject patent teaches, but rather it is only necessary that the claims under attack "read on" something in the reference. *Kalman v. Kimberly Clark Corp.*, 218 USPQ 781 (CCPA 1983). Furthermore, the manner in which a device is intended to be employed does not differentiate the claimed apparatus from prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn (US Pat 3605123).

Regarding claim 9-10 Hahn discloses the claimed invention except for having a porosity with a number 1x10E7-1x10E10 pores/cm<sup>3</sup> and with a diameter of the mouth being in the range of 0.1-10 micrometers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the implant with a

layer of Hahn having a porosity with a number 1x10E7-1x10E10 pores/cm<sup>3</sup> and with a diameter of the mouth being in the range of 0.1-10 micrometers, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. It is noted that changing pore density and pore sizes are known in the art (eg, Pilliar US Pat 3855638).

Regarding claim 11, Hahn discloses the claimed invention except for having the layer consist of titanium oxide. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the layer of Hahn with titanium oxide, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. It is noted that using other materials like titanium oxide or titanium alloy are known in the art (eg, Pilliar US Pat 3855638).

### ***Response to Arguments***

Applicant's arguments filed 2/10/06 have been fully considered but they are not persuasive.

In response to applicant's argument that Hahn does not disclose a layer with "an undulating or uneven surface present on the implant", it noted that Hahn discloses the implant can be a screw, and that the threads of the screw are an uneven surface.

Furthermore, the threads of the screw directly contact the bone, where the “layer” would be applied.

In response applicant’s argument that Hahn does not disclose “contiguous channel branches” and “the layer has high degree of porosity,” it is noted that Hahn’s layer is porous and the porous includes channels that extend from an outer surface of the layer to the implant (see figure 2-3). In regards to claim 9, and as noted in the above rejection, it would have been obvious to invent a layer with the specific pore/cm<sup>3</sup> as stated in claim 9.

In response to the applicant’s arguments that claims 10 and 11 which depend from claim 1, the response and rejection to claim 1 is presented above.

In response to the applicant’s arguments that Hahn fails to disclose the dimension of the channels, it is noted that the porosity on the outer surface of Hahn includes an opening that the opening is considered a mouth and this mouth or opening is faced towards the outer surface of the layer, and as shown in the figure, the pores includes channels that extend into the layer and some channels have a length larger than the diameter of the openings. (see figure 2-3). Again, it would obvious to invent the layer with the specific pore volume and mouth area diameters as specified in claim 10.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant’s disclosure. See PTO-892 for art cited of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kim whose telephone number is (571) 272-2817. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JK



EDUARDO C. ROBERT  
SUPERVISORY PATENT EXAMINER